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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/275,727	03/24/1999	ANKE T. DEJONG	ADAPP091A	1135
25920	7590	06/29/2005	EXAMINER	
MARTINE PENILLA & GENCARELLA, LLP 710 LAKEWAY DRIVE SUITE 200 SUNNYVALE, CA 94085			TRAN, MYLINH T	
			ART UNIT	PAPER NUMBER
			2179	

DATE MAILED: 06/29/2005

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**MAILED**

**JUN 29 2005**

**Technology Center 2100**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/275,727  
Filing Date: March 24, 1999  
Appellant(s): DEJONG ET AL.

Kenneth D. Wright  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 04/07/05.

(1) ***Real Party in Interest***

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A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The statement of regarding grounds of rejection to be reviewed on appeal is correct.

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

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6,009,466	Axberg et al.	12-1999
5, 890,204	Ofer et al.	3-1999

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Axberg et al. [US. 6,009,466] in view of Ofer et al. [US. 5,890,204].

As to claims 1 and 3, Axberg et al. disclose a computer implemented method and corresponding apparatus for a storage area network management and configuration system (column 11, lines 25-45) comprising the steps/means for an enterprise network including a plurality of computer systems, the plurality of computer systems including server computer systems and client computer systems wherein the server computer systems include a server component, and the client computer systems include a client component

(column 4, lines 12-60); the storage enclosure connected to the server computer system from the client computer system without requiring the user to locally interact with the server computer system (column 4, lines 12-41, "Storage network comprises storage devices which are couple to network storage controller via communications links. Each host system connected directly to storage network contains at least one respective storage controller..."). The difference between Axberg et al. and the claim is a storage enclosure being connected to a server computer system having the server component, the storage enclosure having a RAID array of disk and a graphical user interface provided by the client component at a client computer system, the graphical user interface being defined to enable a user to physically build and modify the RAID array of disks of the storage enclosure. Although Axberg et al. already suggests the storage enclosure having a RAID array of disk (column 1, lines 50-55 and column 2, lines 15-25) and a graphical user interface (column 4, lines 22-30 and lines 37-44), Ofer et al. strongly shows the storage enclosure being connected to a server computer system having the server component, the storage enclosure having a RAID array of disk (column 2, lines 25-35 and lines 55-63); and the graphical user interface and a functional tool (provided by a graphical user interface) being defined to enable a user to physically build and modify the RAID array of disks of the storage enclosure (column 1, lines 55-68 and column 4, lines 53-67). It would have been obvious to one of ordinary skill in

the art, at the time the invention was made, to combine Ofer's teaching of graphical user interface with the storage enclosure of Axberg. Motivation of the combination would have been to produce cost-effective, highly available, high performance disk system by using the RAID that is a collection of multiple disk drives being organized into a disk array managed by a common array controller.

As to claim 2, Axberg et al. show an array modifier tool configured to allow online modification of a capacity and cache parameters of a disk array (column 3, lines 1-22).

As to claim 4, While Axberg et al. show the enterprise network, Ofer et al. teach the functional tool to enable the user of the client computer system to build the RAID array of disks through application of a RAID building template (column 1, lines 56-67 and column 3, lines 30-37) comprising a first container defined to enable selection of disks to be used in building the RAID array of disks wherein the disks reside within a storage enclosure (column 5, lines 9-16 "In addition, each storage controller has two disk adapter boards labeled DA15 and DA16, each board able to connect to four disk drives labeled A, B, C, and D. Thus, the storage controller controls up to...eight disk drive units.."); a second container defined to enable selection of the RAID building template that contains a RAID configuration scheme that is optimally selected for a particular storage application (column 5, lines 9-65); and code for dragging the selected RAID building template, that is in the form of an

icon, over the selected disks or dragging the selected disks over the selected RAID building template, the dragging is configured to automatically apply the RAID configuration scheme (column 5, lines 45-54 "the user at the display terminal connected to the host, can "click and drag" delete, or add a connection point being displayed to modify the configuration of the disk drive mass storage system"). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine Ofer's teaching of graphical user interface with the storage enclosure of Axberg. Motivation of the combination would have been to produce cost-effective, highly available, high performance disk system by using the RAID that is a collection of multiple disk drives being organized into a disk array managed by a common array controller.

As to claim 5, Axberg et al. fail to clearly teach a RAID level, a number of drives in the selected hardware and a number of spare drives, a stripe size and array address. However, in the same field of configuration of RAID array of disk, Ofer et al. disclose a RAID level (column 5, lines 8-15), a number of drives in the selected hardware and a number of spare drives (column 4, line 55 through column 5, line 5), a stripe size (column 5, lines 32-45) and an array address (column 5, lines 10-50). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine Ofer's teaching of graphical user interface with the storage enclosure of Axberg. Motivation of the combination would have been to produce cost-effective,

highly available, high performance disk system by using the RAID that is a collection of multiple disk drives being organized into a disk array managed by a common array controller.

As to claim 6, Axberg et al. show an enterprise monitor link, when selected the monitor link provides a window wherein monitoring settings can be set (column 4, lines 15-20).

As to claim 6, Axberg et al. show an enterprise monitor tool configured to provide a window wherein monitoring settings can be set (column 4, lines 15-20 and column 10, lines 30-50).

As to claim 7, Axberg et al. also show discloses a failure indicator (column 6, line 60 through column 7, line 14) and a disk capacity indicator (column 3, lines 1-10).

As to claim 8, Axberg et al. teach a temperature indicator for the storage enclosure, a battery health indicator and a power supply health indicator (column 1, lines 25-37).

As to claim 9, Axberg et al. fail to teach an enterprise monitor window for providing a quick view of selected storage enclosure parameters. However, in the same field of configuration of RAID array of disk, Ofer provides the enterprise monitor window for providing a quick view of selected storage enclosure parameters (column 3, lines 1-15). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine Ofer's teaching of graphical user interface with the storage



enclosure of Axberg. Motivation of the combination would have been to produce cost-effective, highly available, high performance disk system by using the RAID that is a collection of multiple disk drives being organized into a disk array managed by a common array controller.

As to claim 10, Axberg et al. also provide an event notifier configured to provide customizable failure and status notifications associated with storage enclosure within the enterprise network (column 4, lines 55-67).

As to claims 11-12, Axberg et al. demonstrate the setting user notification profiles, the profiles including communication information (column 5, lines 1-17) and the communication information includes e-mail information and pager information (column 5, lines 30-55, network communication).

As to claim 13, Axberg et al. also demonstrate an enterprise icon that when selected allows viewing of the enterprise network that includes the plurality of computer systems and associated storage enclosures that are connected to computer systems having the server component (column 4, lines 25-55).

As to claim 14, Axberg et al. disclose the viewing of the enterprise network can be of physical devices or logical devices, and the physical devices and the logical devices can be displayed in one of a tree view and a quick view (column 8, lines 17-40).

As to claim 15, Axberg et al. also disclose a graphical failure representation provided for selected drives of the storage enclosure, the graphical failure representation being configured to be displayed on a failed drive when the

failed drive is in a viewable setting and on the storage enclosure when the failed drive is not in the viewable setting (column 4, lines 55-67).

As to claim 16, Axberg et al. show the client component providing a user administrator the management and configuration control to the enterprise network (column 5, lines 30-65).

As to claim 17, Axberg et al. also show the enterprise network can include a plurality of storage enclosure that are connected to selected computer systems that are part of the enterprise network and that have the server component (column 4, lines 12-55).

**(11) Response to Argument**

Regarding claim 1, Appellant has argued that "a graphical user interface provided by the client component at a client computer system". However, the host computer is a client system of the storage enclosure (Ofer cites "The method features the steps of communicating data from the host computer to the storage controller for storage in the storage array, presenting to a user at the host computer, at a graphical user interface (GUI), a pictorial representation of interconnections between ports connected to the host computer and ports connected to the desk array, enabling a user to modify the pictorial representation at the host to reconfigure the connections to the host computer and disk array...at column 1, lines 59-65"). The host computer is a client system as being relative of the storage enclosure. The graphical user interface is presented at the host computer. That means the graphical

user interface provided by the client component at a client computer system not being provided by the server computer system. Ofer also teaches the client system by citing "While the traditional approach, whereby diagnostic and corrective action was taken by the customer engineer sitting either at the user's site, or at a central service bureau, was effective to implement all necessary procedures, nevertheless users have consistently urged and requested the ability to perform some of those same functions themselves" at column 1, lines 25-33 and "The storage controller 12 is also connected over a communications path 22 to a personal computer (PC) 24. The personal computer has both a keyboard 26 and a display 28. The keyboard 26 can be used by service personnel to enter configuration, diagnostic, status, correction, and other commands to the PC for controlling the functionality, structure and configuration, and status of the storage controller" at column 2, lines 35-40; and "...the PC 24 always acts as the source of the command data to the controller and the commands are sent to the storage controller over communication bus lines 22" at column 2, lines 47-52.

Appellant argues Axberg does not include any teachings regarding the physical building and modification of a RAID array of disks. Although Examiner relies on Ofer et al. for this teaching (column 2, lines 25-35 and 55-63 and column 4, lines 53-67), Axberg et al. still show the physical building and modification of a RAID array of disks at column 15, lines 47-58 by citing "Storage management program 331 may offer the option to save/print a

configuration in various forms. For example, one form of output may be a list of instructions for the installer of the storage network....Any of these would typically be done after completion of all configuration, i.e, at step 910, but may be performed at intermediate stages as well". Appellant also argues the teachings of Axberg are merely directed to a tool for Planning a configuration of a storage network. However, Axberg's title teaches "Network management system for enabling a user to configure a network of storage devices via a graphical user interface.

Next, Appellant has argued Ofer fails to teach a graphical user interface that enables a user to physically build or modify a storage enclosure connected to a server computer, from a client computer system, without requiring local user interaction with the sever computer system. Examiner already mentions above that Ofer et al. teach the physical building and modification of a RAID array of disk at column at column 4, lines 53-67 "...and easily modify those connections using a convenient graphical user interface at the host computer, enables a user to modify, on the fly, the entire logical structure of the disk storage system". Besides, Axberg et al. show the feature at column 2, lines 50-55 "The user first selects a set of hardware to be configured in a storage network. The storage management program presents a graphical display representing available hardware...".

Regarding claim 3, Appellant has argued neither Axberg nor Ofer teach a functional tool that enables physical building of a RAID array of disks either

from scratch or through application of a RAID building template, particularly without requiring the user to locally interact with the server computer system. The feature of "without requiring the user to locally interact with the server computer system" the Examiner has already responded, Ofer et al. teach the functional tool that enables physical building of a RAID array of disks either from scratch or through application of a RAID building template at column 4, lines 25-52 and column 5, lines 45-54 "the user at the display terminal connected to the host, can "click and drag," delete, or add a connection point being displayed to modify the configuration of the disk drive mass storage system. Accordingly, an interconnection, for example, 170, can be deleted, or can be moved to a different port of SCSI adapter 1 (SA1). Similarly, new connections can be inserted graphically into the display configuration illustrated in FIG. 3".

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

Mylinh Tran



June 24, 2005

Conferees



SPE. Heather Herndon AU 2179



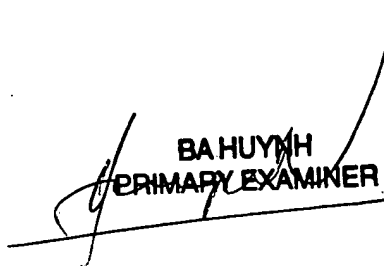
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